

ABSTRACT

Method and apparatus for generating an acid or base, e.g. for chromatographic analysis of anions. For generating a base the method includes the steps of providing a cation source in a cation source reservoir, flowing an aqueous liquid stream through a base generation chamber separated from the cation source reservoir by a barrier (e.g. a charged membrane) substantially preventing liquid flow while providing a cation transport bridge, applying an electric potential between an anode cation source reservoir and a cathode in the base generation chamber to electrolytically generate hydroxide ions therein and to cause cations in the cation source reservoir to electromigrate and to be transported across the barrier toward the cathode to combine with the transported cations to form cation hydroxide, and removing the cation hydroxide in an aqueous liquid stream as an effluent from the first base generation chamber. Suitable cation sources include a salt solution, a cation hydroxide solution or cation exchange resin.

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